DOCUMENT RESUME

ED 439 699 IR 019 973

AUTHOR	Lee, In-Sook
TITLE	Learners' Perceptions and Learning Styles in the Integrated Mode of Web-Based Environment.
PUB DATE	2000-02-00
NOTE	9p.
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Academic Achievement; Cognitive Style; *Computer Assisted Instruction; Computer Attitudes; Foreign Countries; Higher Education; Instructional Development; *Student Attitudes; *Student Reaction; Teaching Methods; *World Wide Web
IDENTIFIERS	South Korea; *Technology Integration

ABSTRACT

This research explores how learners perceive a Web-based learning environment integrated with a traditional classroom, as well as what learning styles are usually identified in this environment. Participants were 156 students at a university in Seoul, Korea, who were surveyed after the semester was over. The majority of them (89.1%) had experienced obstacles in the access and use of the online system on campus--UniverCampus. Findings suggest several strategies for better online instruction: (1) the minority of failing students should be identified and should receive more instructional attention; (2) feedback systems should be considered that will satisfy learners' high expectation and avoid instructions' working overload; (3) there is a strong need for instructional efforts to maintain the proper levels of learning and instructional demand; (4) deliberate strategies may be needed to stimulate learners' serious perception of online instruction; (5) it is desirable and easy demand that learners share with others information and learning outcomes; and (6) especially if multiple "integrated mode" courses are concurrently operated, supporting strategies in various dimensions should be considered in order to ensure learners' confidence. (Contains 14 references.) (AEF)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 439 699

Learners' Perceptions and Learning Styles in the Integrated Mode of Web-based Environment

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
■ This document has been reproduced as received from the person or organization originating it.
□ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

In-Sook Lee

Sejong University
98 kunja-dong Guangjin-gu, Seoul,143-747, Korea
E-mail: inlee@kunja.sejong.ac.kr
2000 AECT International Convention
Feb. 16-20 Long Beach, USA

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
I. Lee
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Introduction

1.2 Background

Web-based instruction may be categorized into three different modes that differ to each other by the extent of using online in a course. The "cyber mode" delivers a completely online instruction-learning environment, the "integrated mode" uses a combination of online and face-to-face interaction, and finally the "support mode" applies online as an additional or supplementary tool to a regular face-to-face class. In a similar way, Harasim et al. suggest the online mode, the mixed mode, and the adjunct mode.

The "cyber-mode" in Korean higher education fairly began to be disseminated in the year of 1997 due to its governmental initiative to create a Virtual University. Along with this trend, the "integrated mode" has been rapidly expanded within the traditional universities, which were willing to adopt a network-based intervention to improve classroom instruction.

The "cyber mode" serves learners who are dispersed in space and/or time; and instructors are expected to interact with them from distance. On the other hand, learners in the "integrated mode" "live" together within a physical campus. Thus, researchers and practitioners may need to recognize how different modes of instructional intervention seem to affect instruction and learning process and outcomes. Hiltz (1994; 1990), based on the examination of various online courses, concluded that the "integrated mode" might have its own idiosyncratic characteristics rather than simple average of the cyber and the traditional face-to-face. Unfortunately, however, few seem to understand that different modes are very likely to have different characteristics in terms of interactions and outcomes. We need more appreciation of the implications of potential differences among the modes.

In addition, online instructional intervention heavily relies on learner-regulated learning. Accordingly, we should put more efforts on understanding learner perceptions and learning styles of online instruction within the "integrated mode" environment. This understanding is more likely to enable us to create learning environments in correspondence with learner needs and characteristics.

IR 019973

BEST COPY AVAILABLE

1.2 Research Questions

The current research intends to explore the following two questions and, given the findings, examine the implications for better instructional interventions:

First, how do learners perceive a web-based learning environment integrated with a traditional classroom?

Second, what are the learning styles usually identified in a web-based learning environment integrated with a traditional classroom?

2. Literature Review

2.1 Learner Perceptions

Hiltz (1994) analyzed learner perceptions of the 'Virtual Classroom', in terms of convenience, interest and participation. The majority felt that the online class was more convenient than the traditional one. Those with sufficient access to the computer system at home were most likely to appreciate the convenience. Most learners perceived that the online class demands at least hard work as the traditional one. Enthusiastic learners spent a great deal of time in their online learning. In the cyber and integrated mode, however, the difference was not significant. There was no overall difference in the degree of interests by mode. But, more than a half reported that they were motivated by the fact that their opinion and comments would be read by others. Majority disagree that online class was more boring than a traditional class; more than a half felt that they took active part in the online class.

Grint (1989) examined learner perceptions of online instruction in order to identify obstacles against its high educational potentials. Overall, learners felt synchronicity of online to be very important. But the lack of spontaneity and real time interaction was a disadvantage because it diminishes naturalness and discourages the motivation for continuous participation. In addition, majority perceived that online activities were appropriate for delivering technical contents rather than affective ones.

According to the research by Kim (1998), majority in an "integrated mode' course experienced learning difficulties during the early period of the semester. However, they formed a very positive attitude toward online at the end. Kim, Noh, & Lee (1998) conducted a research on Math web-based learning and instruction for high school students. They also identified learners' positive attitude toward online activities. In Lee's research (1999), in general, learners felt that the integrated mode of online instruction was more intriguing their online participation than the cyber mode.

2.2 Learning Styles

The research by Hiltz (1994) does not show consistent relationships between learner characteristics and learning performances in neither the cyber nor the integrated. Nonetheless, learners who have the appropriate level of system access and utilize adequately the benefits of human interactions tended to have more positive learning styles. That is, they actively participate in online instruction and

demonstrated better learning performances. Almost half admitted that they were more likely to stop working in an online course than to cut a traditional class, when they became busy with other things. Learners did not have the self-discipline enough to keep a regular and frequent schedule of logon and working. On the other hand, collaborative learning seemed to be demonstrated more in the integrated environment than the traditional or cyber mode.

Lorensten et al. (1989) addressed that learners were more likely to feel comfort with the integrated mode than the cyber. Hiltz (1994) also shows that learners appreciated more the integrated or the support mode. Harasim (1987) identified the online participation rate of during the weekdays was the peak in the evening time; but at the weekend it tended to spread throughout the day.

3. Methods

3.1 Participants

One hundred fifty-six students at one university in Seoul, Korea were surveyed right after the semester was over. They include ninety-eight who took 'Educational Methods and Technology', twenty-seven Instruction and Learning Theory, and forty-two Multimedia Education. While Educational Methods and Technology was a requirement for achieving the Secondary School Teacher Certification, the other twos were the electives of Education major.

The majority of them (89.1%) have experienced obstacles in the access and use of the online system on campus. Less but still majority (78.2%) have suffered from the same problem at home. 61% of the students have their modems at home: Among them, the most common model was 28,800bps and the next one was 56,600bps.

3.2 Procedures and Materials

The current research is based on a web-based online tool, which is called UniverCampus. There are four different functions in UniverCampus and those functions have been fully used in each course during one semester (see figure 1 and figure 2 for some function examples).

(1) To the first page
(2) Bulletin board
(3) Lists and contents of non-responded correspondence
(4) Main menu
    Professor profile
    Syllabus
    Online classroom
    Discussion Room
    Resource Room
    Lounge
    Information of Learning Processes

Link to Professor's Homepage

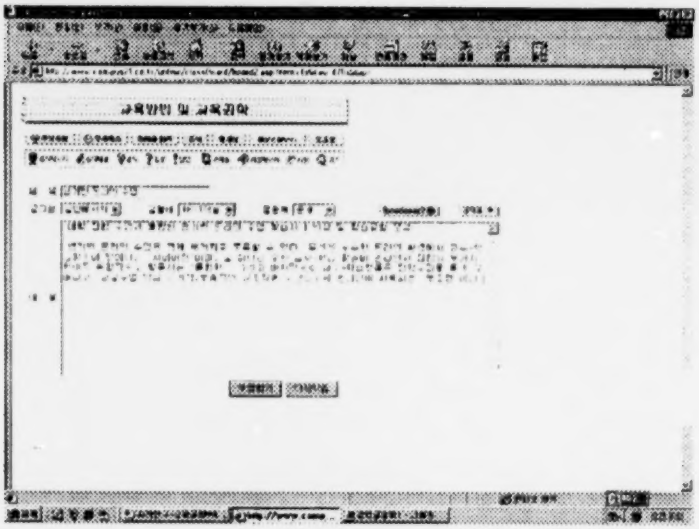

Figure 1: Course Contents Template Sample

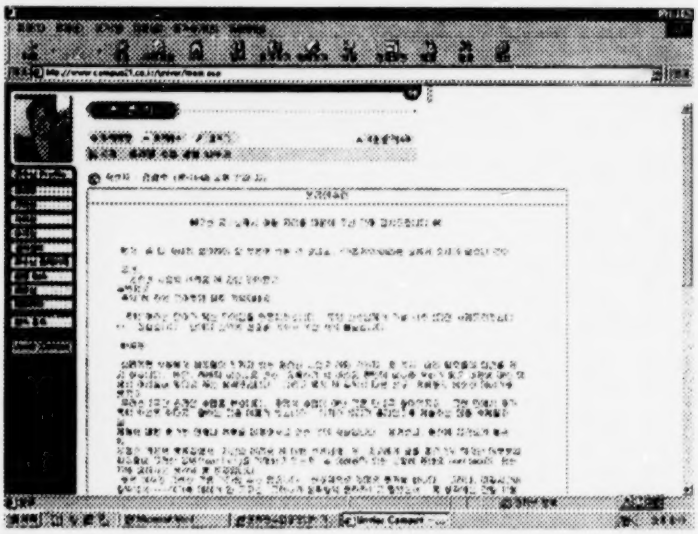

Figure 2 : Online Discussion Sample

BEST COPY AVAILABLE

4. Results and Discussion

4.1 Learners' Perspectives of Web-based Online Instruction

In order to identify various spectrums of learners' perspectives of online instruction, a survey was conducted. The questions include general attitudes toward online instruction; perceptions of usefulness, adaptability, motivation, convenience and difficulty; and perceptions of publicity and sharing; the relative degree of demand and individual access to instructors as compared to a traditional classroom

instruction.

A lot of learners appeared pre-course negative attitude toward online instruction. At the end of the semester, however, majority were positive and felt web-based online instruction useful and convenient. Quite a few learners experienced discomfort with an online environment, but majority overcame it in a short time of period. However, few laggards or fails (8.5% of the participants) that have a trouble in adaptation were also identified. This minority has a great right to receive more instructional attention.

As compared to a traditional classroom, learners perceived that an online environment provided no less chance for access to instructors. This result may be due to two instructional strategies implemented in this research. First, faculty responded to learners' questions at least in a week. Second, faculty managed each learner's learning processes through the online memo to individuals. Existing research shows that insufficient feedback may produce learners' high dissatisfaction (Kim, 1998; Lee, 1999) and, in the contrary, frequent and delicate feedback can produce positive perception that they learn better from feedback (Lim & Jung, 1998; Lim, 1998) .

Learners perceived that the online demands more than a traditional classroom. Some existing research also shows the similar finding (Hiltz, 1994; Lim & Jung, 1998; Lim, 1998) . This implicates that a web-based online instruction has a high potential of learning overload.

Information sharing and diverse thinking have been the most widely recognized educational potentiality of network based instruction (Feenberg, 1999; Harasim, 1990; Romiszowski, 1997). Learners in the current research relatively felt comfortable with the online environment even though others read their own comments and information. They perceived that this nature rather motivates hard work (Hiltz, 1994). Moreover, they put educational values on the information provided by others.

4.2 Learning Styles Online

The current research identified online learners' several common learning styles. Only minority of learners demonstrated regular online participation habits. And online activity rate was the highest during the nighttime (1987) and Fridays. This phenomenon seems closely related to the fact that learners were inclined to participate online just near a due date and, in most cases, assignments were due in Friday midnight. In contrast, online participation rate during the weekend was the lowest. It indicates that most learners used on-campus computer facilities for online class. Considering that quite a few learners still have inconvenient access to computer system and campus computer facilities were not open during the weekend, it would be inevitable that most learners should finish online activities just before the weekend (i.e., Friday).

Most learners perceived online instruction seriously as classroom instruction. This finding differs from most previous research, such as Harasim(1990) and Hiltz (1994). Many learners were uncomfortable with expressing their ideas in a written form as well as participating in discussion. This tendency appeared to get stronger online. Other research shows that if online discussion is managed in a manner of a laissez-faire, learners will easily feel confused and lost and after all will produce poor quality of discussion process and outcomes (Kim, 1998; Lee, 1999). In the current

research, however, majority did not feel difficulties in discussion. The instructor assigned topics for discussion and learners participated in this frame; and participation rates were also counted into grade. This strategy seems to induce relatively higher learner participation. Most of the earlier research, in the contrary, identified low participation rates and especially lower interaction among learners (Kim, 1998; Kim, Noh, & Lee, 1998;Lim, 1998).

Interaction and discussion have been the most widely recognized educational potentials of online instruction. The current research and other previous research as well, however, confirmed that active interaction or discussion on the side of learners does not come without hard work on the side of faculty.

In the meantime, learners tended to get primary help from co-learners. If well promoted instructionally, this tendency can function as a strategic approach for reducing instructors' workload. In order to motivate learners to seek for instructors' or assistants' help, however, purposive and continuous instructional efforts will be required.

5. Conclusions

The findings of this study, taken together, suggest various ideas regarding instructional strategies for better online instruction.

First, a few laggards' pains buried under the majority who well adjust oneself should be recognized and resolved. It could be a starting point to find out some answers about what common characteristics those learners share, how to identify them, how to support them, and so on. In this context, deliberate and continuous instructional efforts will be required in order to stimulate those learners to actively ask help when necessary. Workshops, "online memo" to individuals and assistant or tutor supports could be a few efforts among many others.

Second, we need to consider feedback systems that will satisfy learners' high expectation and concurrently avoid instructors' working overload. Learners may express out stronger expectations of feedback and what is more of 'instant' feedback in an online environment. Some of the suggested strategies embody in-time feedback based on pre-arranged schedules and preliminary feedback by assistants or tutors. In addition, if connecting questions, issues, or activities that are initiated in an online environment into succeeding traditional classroom activities, we can expect maximized learner satisfaction and concurrently improve a traditional classroom instruction well.

Third, there is a strong need for instructional efforts to maintain the proper levels of learning and instructional demanding. Most practitioners agree that an online environment intrinsically has a high potential of producing learning and instructional overload. Nonetheless, there is a rare perception that this quality may exhaust learners and instructors and, as a result, seriously hinder learning performance. Before everything else, instructional design should be conducted to identify a proper learning scope and sequence and to design proper amounts of learning activities and time schedules. Instructional design itself, however, does not guarantee any success; time management on the side of faculty should be accompanied with.

Fourth, some deliberate strategies may be needed to stimulate learners' serious perception of online instruction. Many researches show that not all learners take online instruction for granted as

seriously as classroom instruction. However, the current research shows that strategic efforts can make differences.

Fifth, it is desirable and yet easy to demand learners to share with others information and learning outcomes. In contrast, deliberate efforts are demanded in order to induce active discussions and interactions among learners. Instructors as a discussion leader and the integration of online activities with traditional classroom activities are just a few solutions among many others.

Sixth, especially if multiple "integrated mode" courses are concurrently operated, supporting strategies in various dimensions should be considered in order to ensure learners' convenience. Some of those include collaborative efforts among faculty to properly distribute learners' online participation time; technical efforts to ensure the network system capacity enough to support concurrent users at a peak time; and administrative efforts to guarantee support services for users.

References

Feenberg, A. (1989). The written world: On the theory and practice of computer conferencing, In R. Mason & Kaye (Eds.), Mindweave: Communication, computers and distance education (pp. 22-30), Oxford: Pergamon.

Grint, K. (1989). Accounting for failure: Participation and non-participation in CMC, In R. Mason & A. R. Kaye (Eds.), Mindweave: Communication, computers and distance education (pp. 189-191), Oxford, England: Pergamon.

Harasim, L. (Eds.) (1990). Online education: Perspectives on a new environment, New York: Praeger.

Harasim, L. M. (1987). Teaching and learning on-line: Issues in computer-mediated graduate courses. Canadian Journal of Educational Communication, 16(2), 117-35.

Harasim, L., Hiltz, S. R., Teles, L., & Turoff, M. (1995). Learning networks: A field guide to teaching and learning online. Cambridge, MA: The MIT Press.

Hiltz, S. R. (1994). The virtual classroom: Learning without limits via computer networks., Norwood, NJ: Ablex Pub.

Hiltz, S. R. (1990). Evaluating the virtual classroom. In L. Harasim (Ed.). Online education: Perspectives on a new environment (pp. 134-183). New York: Praeger.

Kim, M. R. (1998). A case study on finding out barriers of diffusion of web-based instruction. (Korean) Journal of Educational Technology, Vol. 14, No. 3, pp. 55-79.

Kim, M., Noh, S., & Lee, J. (1998). Effectiveness of using a web-site for two-way communication in mathematics Education. (Korean) Journal of Educational Technology, Vol. 14, No. 3, pp. 81-104.

Lee, I. (1999). An case study on the factors affecting learners' discourse participation in computer conferencing. (Korean) Journal of Educational Research, Vol. 37, No. 1, pp. 127-153.

Lim, J., & Jung, I. (1998). Cognitive and psychological changes of a learner during the process of instruction in a web-based instruction. (Korean) Journal of Educational Technology, Vol. 14, No. 3, pp. 331-357.

Lim, J. (1998). Research on the instructional-learning activities and educational effects in a virtual instruction based on the Internet. (Korean) Journal of Educational Technology, Vol. 14, No. 2, pp. 103-136.

Lorentsen, A., Dirckinck-Holmfeld, & Andersen, K. (1989). Picnic-project in computer networks in distance education curricula. In R. Mason & A. R. Kaye (Eds.), Mindweave: Communication, computers and distance education (pp. 196-197). Oxford, England: Pergamon.

Romiszowski, A. (1997). Web-based distance learning and teaching: Revolutionary invention or reaction to necessity?. In B. H. Kahn (Ed.). Web-based instruction(pp.25-37). Englewood Cliffs, NJ: Educational Technology Publications.

BEST COPY AVAILABLE